

The opinion in support of the decision being entered today  
is not binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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*Ex parte* PERRY G. VINCENT

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Appeal 2007-0271  
Application 09/750,948  
Technology Center 3600

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Decided: June 19, 2007

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Before ERIC GRIMES, LORA M. GREEN, and NANCY J. LINCK,  
*Administrative Patent Judges.*

LINCK, *Administrative Patent Judge.*

**DECISION ON APPEAL**

Appellant appeals the Examiner's 35 U.S.C. § 102(b) rejection of claims 1, 4-6, and 9 and her 35 U.S.C. § 103(a) rejection of claims 7, 8, and 10-20. We have jurisdiction to decide this appeal under 35 U.S.C. § 6(b).

We affirm.

## STATEMENT OF THE CASE

Appellant's invention "relates to a customer relationship management system and, more particularly, to the use of a rules engine to determine patterns in a customer's multi-channel interactions with a business and to suggest interaction strategies for a current interaction based upon observed patterns." (Specification ("Spec.") 1.) The claimed subject matter is reflected in representative claims 1 and 11, reproduced below (with the disputed limitations highlighted):<sup>1</sup>

1. A method of suggesting an interaction strategy to a customer service representative in a customer relationship management environment, said method comprising the steps of:

maintaining an interaction repository containing customer data;

*utilizing one or more data analysis tools comprising executable instructions to analyze said customer data to determine one or more patterns and generate a set of rules based upon said patterns; and*

using a recommendation engine to apply said rules to a current customer interaction to recognize one or more of said patterns in said interaction and suggest an interaction strategy corresponding to said recognized patterns.

11. A system for recommending a strategy for managing a customer interaction, said system comprising:  
a plurality of interaction channels for capturing customer data;

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<sup>1</sup> Appellant argues two claim limitations with respect to all of the claims. Thus we respond to these arguments and determine the patentability of all the appealed claims with reference to claims 1 and 11.

*one or more data analysis tools comprising executable instructions for analyzing said customer data from said plurality of channels and determining one or more patterns from said data; and*

a recommendation engine for analyzing a current customer interaction and recognizing one or more of said patterns in said interaction, said recommendation engine recommending strategies corresponding to said recognized patterns.

The Examiner's 35 U.S.C. § 102(b) rejection of claims 1, 4-6, and 9 is based on a publication entitled "Net Perceptions Alters Dynamics of Marketing Industry with Introduction of Net Perceptions for Call Centers," PR Newswire 9487 (Oct. 12, 1998) (hereafter "Net Perceptions"). The 35 U.S.C. § 103(a) rejection of claims 7, 8, and 10-20 is based on Net Perceptions and Andrews, Whit, "A Hidden Agenda," Internet World 43, 44 (October 1, 1999) (hereafter "Andrews").

#### ISSUES ON APPEAL

With respect to the § 102(b) rejection, Appellant contends:

It is not seen . . . that the Net Perceptions Publication teaches "one or more data analysis tools comprising executable instructions to analyze said customer data to determine one or more patterns and generate a set of rules based upon said patterns" as part of the Net Perceptions call center solution.

(Br. 5.)

The Examiner responds:

"Net Perceptions . . ." specifically states that Net Perceptions "continuously builds customer profiles as each call progresses and uses the information to prompt agents with purchase recommendations that are unique to each customer" (¶ 2). This means that the Net Perceptions software

evaluates, or analyzes, each customer profile in order to generate customized recommendations. The Net Perceptions software must be programmed to correlate specific customer profile data with a particular set of recommendations if the recommendations are to be customized for each customer. As a matter of fact, Net Perceptions' "recommendation engine zeroes in on individual preferences by pooling information from current and previous calls, and by drawing upon a database of information on other customers with similar buying patterns" (§ 4), thereby indicating that patterns of successful sales are gleaned from the patterns of "other customers with similar buying patterns." Clearly, Net Perceptions analyzes customer data to determine one or more patterns. Then, the sales agent may be prompted to enter additional customer information and/or be provided with personalized recommendations for each customer. These instructions and/or output generated by Net Perceptions are not only based on rules, but may also be interpreted as rules generated by Net Perceptions and presented to the sales agent.

(Answer 8-9.<sup>2</sup>)

Based on these conflicting positions, the § 102(b) issue before us is, does Net Perceptions disclose "one or more data analysis tools comprising executable instructions to analyze said customer data to determine one or more patterns and generate a set of rules based upon said patterns," as required by claim 1?

With respect to the § 103(a) issue, Appellant contends:

Neither the Net Perceptions Publication or Andrews, taken singularly or in combination, teaches "one or more data analysis tools comprising executable instructions for analyzing said customer data from said plurality of channels

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<sup>2</sup> The paragraph numbers correspond to handwritten numbers on the documents in the record.

and determining one or more patterns from said data,” an element of each one of claims 11 through 15.

(Br. 6.)

In her response to Appellant’s argument, the Examiner relies upon the same reasoning quoted above but further elaborates on her response to address the additional claim language “from said plurality of channels” as follows:

Andrews teaches that Net Perceptions does offer a recommendation engine that collects and analyzes data regarding customer interactions among various channels, including telephonic (i.e., physical) and online/Web (i.e., a virtual and self-service application) interactions (§§ 1,4). This capability allows merchants to more comprehensively and successfully personalize product offerings made to customers, especially those that interact with the merchants through various channels (§§ 1, 4). As a matter of fact, the SkyMall implementation of Net Perceptions' recommendation engine, as disclosed by Andrews, is embodied in a call center environment (similar to Net Perceptions' packaged product, Net Perceptions for Call Centers); therefore, . . . it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to adapt the product Net Perceptions for Call Centers to capture customer data from a plurality of different interaction data sources, including both physical and virtual channels (such as a self-service application), in order to reap the full capabilities of Net Perceptions' recommendation engine in the call center environment, thereby allowing merchants to more comprehensively and successfully personalize product offerings made to customers, especially those that interact with the merchants through various channels (as suggested in §§ 1,4 of Andrews).

(Answer 10.<sup>3</sup> *See also* Answer 8-9 (quoted in relation to the § 102(b) issue).)

The § 103(a) issue before us is, when considered together do Net Perceptions and Andrews disclose "one or more data analysis tools comprising executable instructions for analyzing said customer data from said plurality of channels and determining one or more patterns from said data," as required by claim 11?

#### FINDINGS OF FACT<sup>4</sup>

1. Net Perceptions discloses "maintaining an interaction repository containing customer data." (*See* Net Perceptions, ¶¶ 2-4 ("builds customer profiles," including "customer purchase histories, preferences and tastes . . . by pooling information from current and previous calls, and by drawing upon a database of information on other customers").)

2. Net Perceptions discloses "utilizing one or more data analysis tools comprising executable instructions to analyze said customer data to determine one or more patterns." (*See* Net Perceptions, ¶¶ 2-4 ("system's recommendation engine zeroes in on individual preferences by pooling information from current customers and previous calls, and by drawing upon a database of information on other customers with similar buying patterns").)

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<sup>3</sup> *See supra* note 2.

<sup>4</sup> Findings of Fact are abbreviated "FF."

3. Net Perceptions discloses “generat[ing] a set of rules based upon said patterns” in that such rules would be required for the recommendation engine to “prompt[] agents with pertinent customer information and specific purchase recommendations for whoever is on the line”. (*Id.* See also Answer 9.)

4. One of ordinary skill in the art would equate “a rules engine” (Spec. 1), with a “recommendation engine” (claim 11). (*See also* Net Perceptions, ¶ 4; Andrews *passim*.)

5. Finally, Net Perceptions discloses “using a recommendation engine to apply said rules to a current customer interaction to recognize one or more of said patterns in said interaction and suggest an interaction strategy corresponding to said recognized patterns.” (*See* Net Perceptions, ¶¶ 2-4 (“system’s recommendation engine zeroes in on individual preferences by pooling information from current customers and previous calls, and by drawing upon a database of information on other customers with similar buying patterns” and “prompts agents with pertinent customer information and specific purchase recommendations” based on the identified patterns).)

6. Andrews further describes Net Perceptions’ recommendation engines and their versatility and identifies Net Perceptions as one company offering recommendation engines. (*See* Andrews *passim*.)

7. Andrews discloses, or at least suggests, using “executable instructions for analyzing customer data from [a] plurality of channels.” (Andrews, ¶ 1 (“recommendation engines,” such as that of Net Perceptions, “can use multiple channels”). See also Andrews, ¶ 4 (“Net Perceptions’ recommendation engine . . . provide[s] advice to consumers . . . through

multiple channels”); ¶ 11 (Companies, such as Net Perceptions, have used “multichannel strategy” to “match[] data collected in one place to the originating customer in another.”).)

8. The availability and use of multiple channels in the Net Perceptions system, as described in Andrews, combined with Net Perceptions’ use of collected data to analyze buying patterns, would have motivated the skilled artisan to collect such data using multiple channels with a reasonable likelihood of success. (See FFs 5, 6; Answer 10 (quoted above).)

#### DISCUSSION

With respect to the rejection of claim 1 under § 102(b), Appellant disputes a single limitation, i.e., the step of “utilizing one or more data analysis tools comprising executable instructions to analyze said customer data to determine one or more patterns and generate a set of rules based upon said patterns.” (Br. 5, 6.) We find this limitation is fully disclosed in Net Perceptions. See FF 2, 3. While the express terms “data analysis tools,” “executable instructions,” and “set of rules” do not appear in Net Perceptions, they are necessarily and inherently present, as would have been recognized by the skilled artisan.

Under “35 U.S.C. § 102, every limitation of a claim must identically appear in a single prior art reference for it to anticipate the claim,” *Gechter v. Davidson*, 116 F.3d 1454, 1457, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997). Nevertheless, a limitation can be satisfied through inherency. See, e.g., *In re Ludke*, 441 F.2d 660, 663, 169 USPQ 563, 566 (CCPA 1971) (affirming a



§ 102 rejection based on parachute's "inherent operating characteristics"), *cited with approval in In re King*, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986). Clearly, "data analysis tools" and "executable instructions" would have been necessary to analyze the customer information in Net Perceptions' recommendation engine and a "set of rules" would have been necessary to then provide agents with "pertinent customer information and specific purchase recommendations" for a specific customer. Appellant has not provided any evidence sufficient to "prove that the subject matter shown to be in the prior art does not possess the characteristic relied on." *In re Swinehart*, 439 F.2d 210, 212, 169 USPQ 226, 229 (CCPA 1971), *cited with approval in King*, 801 F.2d at 1327, 231 USPQ at 138. Thus, we affirm the Examiner's § 102(b) rejection of claim 1.

With respect to claim 11, rejected under § 103(a), Appellant again argues a single limitation is not met, i.e., "one or more data analysis tools comprising executable instructions for analyzing said customer data from said plurality of channels and determining one or more patterns from said data." (Br. 6.)

We have discussed this limitation with respect to the § 102(b) rejection, except for the "from said plurality of channels" language. We find this additional language would have been expressly taught, or at least suggested, by the combination of Net Perceptions and Andrews. (*See* FFs 5, 6.) One of ordinary skill in the art would have been motivated to use the disclosed multiple channels, as described in Andrews, to collect data to analyze buying patterns, as described in both Net Perceptions and Andrews, and would have had a reasonable likelihood of success. (*See* FFs 5, 6, 7.)

*See KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1742, 82 USPQ2d 1385, 1397 (“person of ordinary skill is also a person of ordinary creativity, not an automaton”). Thus, the invention of claim 11 would have been obvious to one of ordinary skill in the art at the time Appellant’s invention was made. We affirm the Examiner’s rejection of claim 11 under § 103(a).

Appellant did not separately argue the patentability of the remaining claims on appeal. Thus, we also affirm their rejection pursuant to 37 C.F.R. § 41.37(c)(1)(vii).

#### CONCLUSION

We affirm the § 102(b) rejection of claims 1, 4-6, and 9 and the § 103(a) rejection of claims 7, 8, and 10-20.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

smc

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